

VZCZCXRO7621
RR RUEHCN RUEHGH
DE RUEHGZ #0018/01 0120938
ZNR UUUUU ZZH
R 120938Z JAN 10 ZDK
FM AMCONSUL GUANGZHOU
TO RUEHC/SECSTATE WASHDC 1280
INFO RUEHOO/CHINA POSTS COLLECTIVE 0429
RUEHBJ/AMEMBASSY BEIJING 1038
RUEHCN/AMCONSUL CHENGDU 0355
RUEHHK/AMCONSUL HONG KONG 0419
RUEHGH/AMCONSUL SHANGHAI 0354
RUEHSH/AMCONSUL SHENYANG 0364
RUEHIN/AIT TAIPEI 0311
RUEHGP/AMEMBASSY SINGAPORE 0022
RUEHUL/AMEMBASSY SEOUL 0046
RUEHKO/AMEMBASSY TOKYO 0053
RUCPDO/DEPT OF COMMERCE WASHINGTON DC 0131
RUEATRS/DEPT OF TREASURY WASHINGTON DC 0231
RHMFIUU/DEPT OF JUSTICE WASHINGTON DC 0053
RUEAIIA/CIA WASHDC 0399
RUEKJCS/DIA WASHDC 0395

UNCLAS SECTION 01 OF 03 GUANGZHOU 000018

SENSITIVE
SIPDIS

State for EAP/CM; EEB/CIP; EEB/TPP; INR/EAP; S/P
USTR for China Office
TREASURY FOR OASIA/INA -- DOHNER/HAARSAGER/WINSHIP
TREASURY FOR IMFP -- SOBEL/CUSHMAN
USDOC FOR ITA DAS KASOFF, MELCHER, MAC/OCEA
STATE PASS CEA FOR BLOCK
STATE PASS CFTC FOR OIA/GORLICK

E.O. 12958: N/A
TAGS: [ENRG](#) [ECON](#) [SENV](#) [ETRD](#) [EINV](#) [TNGD](#) [PGOV](#) [CH](#)

SUBJECT: (U) Energy Efficient LED Lighting Has Bright Future in South China

REF: A) 09 BEIJING 00808, B) 09 CHENGDU 000320

GUANGZHOU 00000018 001.4 OF 003

(U) This document is sensitive but unclassified. Please protect accordingly. Not for release outside U.S. government channels. Not for internet publication.

11. (U) Summary and comment: China will invest in energy efficient LED (light emitting diode) lighting on a massive scale in the next three to five years, according to leading south China LED manufacturers. Guangdong province, which currently produces approximately half of China's LEDs, stands to reap substantial benefits from the government's efforts to promote the industry, including RMB 500-600 billion (about US\$74-88 billion) in stimulus spending. Government spending will go to financing purchases of LED lighting and to research and development (R&D), but south China manufacturers believe that the R&D funding might be inadequate or misallocated. Other challenges facing the industry include scarce financing, lack of energy savings standards and low consumer awareness. China's investment in the LED industry may benefit U.S. buyers of LED lights in the form of lower prices and greater product choice, but could also lead to stiffer competition for U.S. firms in the industry. End summary and comment.

Government Takes Big Steps to Promote LED Industry

12. (SBU) The world's conversion to LED lighting is inevitable, according to Steve Kelley, the chief operating officer of Cree Inc. Cree, the largest U.S. manufacturer of LED chips, is set to open a new US\$50 million dollar facility in Huizhou, Guangdong. "Anyone who can do a cost benefit analysis can see using LED lights makes sense, not just because it saves energy but because it saves money," Kelley said. But the Chinese government's role in promoting the LED

industry is speeding up China's transformation from traditional lighting to LED lights, Kelley commented. "The Chinese government has basically decreed they will have LED street lighting. They are accelerating the process of moving toward LED lights with incentives."

13. (SBU) China's LED industry already includes approximately 3,800 companies, according to Shenzhen Quantum Optoelectronic Co. Ltd., a leading packaging company with over 1,000 employees. Twenty-six of these companies are high-end LED companies that manufacture LED chips, 1,950 are middle-end companies focused on taking the chips and "packaging" them with the necessary parts to make LED bulbs, and 1,480 companies make LED applications such as street lights containing hundreds of the individual LED bulbs. Guangdong province makes half of the LEDs produced in China. Industry contacts estimate that the LED market exceeded RMB 30 billion (about US\$4.4 billion) in 2008 and has the potential to grow five-fold.

14. (SBU) The money the Chinese government plans to spend on LEDs is impressive. About RMB 500-600 billion (US\$74-88 billion) out of the 2009 stimulus package was set aside for developing the LED industry, according to Liu Zhen, the president of Shenzhen Quantum Optoelectronic Co. He explained that the government would invest most of these billions to light parts of China's underdeveloped west in the next five years. Much of that money will go to converting existing street lamps to LEDs or installing new outdoor lighting, he said.

R&D Too...But Not Enough

15. (SBU) Support will come not only from government purchases of LED lighting but also in funds for R&D. Companies can apply at the

GUANGZHOU 00000018 002.4 OF 003

local, provincial and even central government level for grants to support research or environmental projects, according to Martin Lee CEO of Shenzhen Ledman Optoelectronic Co., Ltd., another leading LED packaging company. However, Lee commented these funds were hard to secure and disbursed in small amounts. With an estimated 99 percent of the LED companies focusing on packaging and applications and only one percent investing significantly in R&D, the R&D base is weak, Lee said. Most companies just copy the products others develop, according to Andy Roddam, a Vice President at Guangzhou Yajiang Photoelectric Equipment Ltd., whose outdoor LED lights were used almost exclusively at China's 60th anniversary celebrations and are set to light the Eiffel Tower. In addition, because of the large number of LED manufacturers, research funds do not always go to the company with the best product or idea but more often to the company with the most political clout, Lee said.

16. (SBU) The industry in China also suffers from a lack of domestic LED chip manufacturing capacity. In conversations with three south China manufacturers, each one complained about the high cost of imported chips. The United States, Korea, Taiwan and Japan still have the technological upper hand in the LED industry as producers of quality LED semiconductor chips, according to local industry experts. China's strength lies in its low cost of labor to "package" these chips with the necessary components to make LED bulbs. China's success in developing a domestic LED chip manufacturing industry is yet to be seen, commented Cree's Kelley: "Making chips is as much art as it is science and the Chinese can't figure out how to do it by reading our patents."

Other Challenges: Financing, Standards and Awareness

17. (SBU) Other major challenges continue to face China's LED industry. Financing is still a problem for small- and medium-sized LED application manufacturers, according to industry insiders. "The banks won't lend to you unless you have a government contract or a purchase order from a foreign client," claimed Miu Xiaoping, Operating Director of PONI Energy Saving Limited. He commented that some companies, including his own, had difficulty just finding financing for day-to-day operations. (Comment: Consolidation of the industry appears likely as companies who cannot find financing go

out of business or join forces to compete. End comment.)

¶8. (SBU) In addition, there is currently no standard for the LED energy savings. A similar standard to the United States' Environmental Protection Agency's "Energy Star" in the United States should be established, Roddam from Guangzhou Yajiang said. He pointed out that two LED lights with the exact same voltage can produce vastly different amounts of light. Roddam explained that, without standards, only an expert could tell the difference and consumers wouldn't know what they were getting.

¶9. (SBU) LED sales will take off within three to five years, according to all four of the LED manufacturers Congenoff met with. But those sales will be mostly to the government and businesses because of the higher price of LEDs, Kelley predicted. He believes that lack of energy standards and consumer knowledge about LEDs' potential energy savings means sales to consumers will take much longer -- five to fifteen years.

Comment - Benefits and Costs for U.S. Interests

¶10. (SBU) China sees the LED industry not only as an opportunity to achieve manufacturing dominance in a newly emerging industry but as a way to realize many of its core goals in one stroke: increasing

GUANGZHOU 00000018 003.4 OF 003

GDP and creating jobs, developing high-tech industry, and protecting the environment. Consumers in the United States also will likely benefit from lower LED prices as manufacturers scale up. However, Chinese policies to develop the LED industry could lead to increased Chinese dominance and tough competition for U.S. companies.

JACOBSEN